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[10191/1431]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

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Brief
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Applicants : Thorsten OTT et al.
Serial No. : 09/586,214
Filed : June 2, 2000
For : METHOD AND DEVICE FOR CONTROLLING VEHICLE
SPEED DURING DESCENT

Examiner : Olga HERNANDEZ

Art Unit : 3661

Confirmation No. : 8054

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Jong H. Lee

**APPELLANTS' REPLY BRIEF IN RESPONSE TO
EXAMINER'S ANSWER (UNDER 37 C.F.R. § 1.193)**

S I R :

In response to the Examiner's Answer mailed on July 31, 2003
regarding the above-identified application, Applicants submit the following
arguments in support of the appeal of the final rejection.

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ARGUMENTS

Claims 1, 2 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 5,794,735 ("Sigl"). For the reasons stated below, the obviousness rejection of claims 1, 2 and 8 should be reversed.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). More specifically, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). In addition, generalized assertions that it would have been obvious to modify the reference teachings do not properly support a § 103 rejection. See In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992).

Claim 1 recites "[a] method for controlling a vehicle comprising . . . ***detecting whether the vehicle is traveling on a descent.***" (Emphasis added). In the Examiner's Answer, "the Examiner maintains that the inability to maintain the set speed after the engine output is reduced [as disclosed in Sigl] is the same as detecting the vehicle traveling on a descent (column 3, lines 42-53)." However, Applicants respectfully point out that the Applicants'

specification clearly indicate that “***detecting whether the vehicle is traveling on a descent***” is accomplished by utilizing a ***vehicle tilt sensor or a computation*** based on “the rate of change of acceleration, the offset acceleration, which is caused by, among other things, the change in vehicle position, and . . . the wheel brake pressure.” (Specification, p. 4, l. 1-3 and 11-14). The Specification further indicates that “[i]f descent is detected, the controller is activated.” (P. 5, l. 9). Accordingly, it is absolutely clear that the claimed term “detecting” necessarily involves affirmative **monitoring** and **recognition** of an occurrence of a condition, **not merely the occurrence of a condition**.

In contrast to the claimed invention, the Sigl reference merely mentions ***an occurrence of a vehicle traveling on a descent***, but there is simply no indication that the vehicle control system **detects** whether the vehicle is traveling on a descent. The section of Sigl relied upon by the Examiner as teaching “**detection**” of a descent actually indicates the following: a) “information pertaining to the vehicle speed control is transmitted via the lines 38 and 40 . . . to the control unit 24”; b) “measure of the adjusted engine output is transmitted via the line 40 to the control unit 24 and . . . the control unit 24 is activated to intervene in a brake 36”; c) “[i]n response to the information conveyed via the line 40, the two control units are interlocked”; and d) “[i]nformation concerning the operating state of the control unit 10 (e.g., cruise control active) and the setpoint/actual deviation can be transmitted via the line 38.” (Col. 3, l. 42-53). It is simply unclear how the above-quoted sections of the Sigl reference teach or suggest *an affirmative recognition or detection* of a *descent*. Therefore, Applicants respectfully submit that the Sigl reference cannot render obvious claim 1.

In the Examiner’s Answer, the Examiner argues that Sigl teaches the claimed feature of “calculating at least one manipulated variable based on the actual speed and the setpoint speed *only when the vehicle is detected as*

traveling on the descent,” as recited in claim 1, because in Sigl, “the intervention in a braking device is preferably carried out as a function of the difference between the setpoint and the actual speed and leads to the braking device being influenced to adhere to the setpoint speed through the actual speed,” and “[t]his **only happens when the vehicle is going downhill.**” (Examiner’s Answer, p. 5). Therefore, the Examiner contends that “it is the same as calculating at least one manipulated variable based on the actual speed and the setpoint speed only when the vehicle is detected as traveling on a descent.” However, this conclusion is clearly contradicted by the teachings of Sigl: “**it is only in a few operating states, such as when driving on downhill grades, that the adjusted speed is exceeded.**” (Col. 3, l. 21-23). This statement clearly indicates that “the braking device being influenced to adhere to the setpoint speed through the actual speed” may occur in **a few operating states**, and does not “**only happen when the vehicle is going downhill.**” Furthermore, since Sigl does not provide any affirmative arrangement for detecting a descent, it is impossible for Sigl to teach or suggest calculating a manipulated variable *only* when a descent is detected, as recited in claim 1. Accordingly, for the foregoing reasons, it is respectfully submitted that Sigl cannot render obvious claim 1.

In the Examiner’s Answer, the Examiner “points out that the prior art of record goes through a process, because in column 3, lines 20-25 specifies the adjustment of the speed when the vehicle is downhill,” and therefore, “it has to detect that the vehicle is going downhill in order to adjust the speed.” (Examiner’s Answer, p. 6). This argument is not only clearly illogical, but confuses driving on a downhill grade with an affirmative “detection” of driving on a downhill grade. As previously noted, column 3, lines 21-23 of Sigl clearly indicate that driving on a downhill grade is one of “**a few operating states [in which] the adjusted speed is exceeded,**” which means “the adjustment of the speed” does not have to occur **only in the context of a downhill grade**. Furthermore, the fact that “the adjusted speed is exceeded” when the vehicle is

driving on a downhill does not necessarily mean that the vehicle is affirmatively monitoring a descent; instead, Sigl merely recognizes that “adjusted speed is exceeded,” which may or may not be caused by a downhill descent.

Regarding the limitation of claim 2, the Examiner maintains that “Sigl teaches at least one manipulated variable is calculated only when the switch is activated (Figure 2, column 4, lines 15-34).” However, the cited section of Sigl clearly notes that “**if indicated**, the setpoint value VS for the speed of the vehicle is reset in step 210,” and “[t]his can take place, e.g., in that the driver specifies a new desired speed via the operating element.” (Col. 4, l. 16-19). Furthermore, “[i]n step 220, the setpoint deceleration AS follows from the actual instantaneous speed VI and the desired speed VS, as well as from the time during which the speed is to be adjusted.” (Col. 4, l. 19-24). Clearly, the setpoint deceleration AS is calculated in step 220 **regardless of whether the setpoint value VS was reset** by the driver. Accordingly, the cited section of Sigl clearly fails to teach or suggest the limitation that “the at least one manipulated variable is calculated **only when** one of a switch and a button is activated.”

Regarding claim 8, the Examiner maintains that Sigl teaches the limitations of “an enabling arrangement for enabling only the manipulated variable to be calculated and output, respectively, *if a descent of the vehicle has been detected*; and . . . *an arrangement for detecting the descent of the vehicle*,” because in Sigl, “the intervention in a braking device is preferably carried out as a function of the difference between the setpoint and the actual speed and leads to the braking device being influenced to adhere to the setpoint speed through the actual speed,” and “[t]his **only happens when the vehicle is going downhill**.” (Examiner’s Answer, p. 6). Therefore, the Examiner contends that “it is the same as calculating at least one manipulated variable based on the actual speed and the setpoint speed only when the vehicle is detected as traveling on a descent.” However, this conclusion is clearly contradicted by the

teachings of Sigl: **"it is only in a few operating states, such as when driving on downhill grades, that the adjusted speed is exceeded."** (Col. 3, l. 21-23). This statement clearly indicates that "the braking device being influenced to adhere to the setpoint speed through the actual speed" may occur in **a few operating states**, and does not **"only happen when the vehicle is going downhill."**

Independent of the above, Sigl clearly does not provide a specific **structure for detecting a descent** as recited in claim 8, i.e., "the control device includes an arrangement for detecting the descent of the vehicle." Since Sigl does not teach or suggest a control device which includes **an arrangement for detecting the descent** of the vehicle, it is respectfully submitted that the Sigl reference does not render obvious the subject matter of claim 8.

CONCLUSION

For the preceding reasons, it is respectfully submitted that the rejection of claims 1, 2 and 8 under 35 U.S.C. § 103(a) should be reversed.

Respectfully submitted,

KENYON & KENYON

Dated: 9/15, 2003

By: for Rich Mayer (by J. L. Mayer)
Richard L. Mayer
Reg. No. 22,490
K. No. 36,197
CUSTOMER NO. 26646
PATENT & TRADEMARK OFFICE